

REMARKS

New inventors' declarations were submitted with the amendments forwarded on May 16, 2003 and June 17, 2003, referring to 35USC119(e), identifying the present application by Serial Number and filing date. As those were original documents – that is, containing original signatures – they are not re-introduced with this paper, and applicants would appreciate a formal recognition of their entry into the file.

Re the initial rejection, under Section 112, of claims 4 and 17, it is believed the above recited amendments cure the problem. Claim 4 has been canceled and the amendment to claim 16 corrects the antecedent for claim 17. Please see the appended set of claims as amended. It is believed all the misspellings have been corrected by the above detailed amendments.

Referring now to the Section 103 rejections, it is noted that all the claims are rejected on a combination of Gartner 5,627,135 and Miskiel et al 6,083,890, the Examiner saying that Gartner teaches combinations of DBNPA and xanthan, recommending acetic acid to reduce the pH. But as Examiner notes, Gartner says nothing about low acetate xanthan, or acetate-free xanthan, which is specified in all of applicants' claims. Miskiel is cited for the use of low acetate xanthan gum in acidic cleaning solutions, which is said to improve the viscosity stability. Examiner then asserts that it would have been obvious to substitute Miskiel's low acetate xanthan gum for Gartner's conventional xanthan gum, "with the reasonable expectation of obtaining an improved cleansing composition with superior viscosity and stability."

But applicants are not concerned with achieving an improved cleansing composition. Rather, applicants' objective is to achieve a longer shelf life for haloacetamide antimicrobial compositions. As explained in paragraph 0006, reducing the pH does not entirely solve the problem of hydrolysis of the haloacetamide microbiocide. Not only does the haloacetamide suffer at least some continuing hydrolysis even at low pH's, but the use of an acid by itself to maintain the low pH has significant adverse effects on the conventional xanthan gum, reducing the viscosity and accelerating the hydrolysis of the haloacetamide.

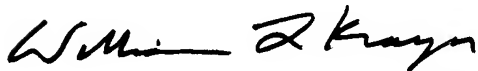
Miskiel et al do not deal with the degradation or hydrolysis of microbiocides – rather, their concern is the viscosity of their cleaning compositions. All of their tables display viscosity results. None of the data relates to stability of a microbiocide. A teaching of Miskiel et al is that because the viscosity of their modified compositions is more stable than that of compositions using conventional xanthan, less of the low acetate xanthan is required to maintain the desired viscosity over a longer period (column 14, lines 18-26).

Examiner's attention is directed to applicants' Table 1, showing the physical and chemical stability of haloacetamide in variously buffered acetate-free xanthate suspensions. Nothing in Miskiel's disclosure would lead one to collect these data. Note particularly the poor results with oxalic acid, which Gartner treats as equivalent to acetic acid (Gartner column 5, lines 39-40). Miskiel also makes no distinction among acids, providing a long list not only of organic but also inorganic acids for their cleaning compositions (column 7, lines 22-33), of which acetic acid is only one. By contrast, applicants clearly prefer **a specific combination of acetic acid and sodium acetate**, and provide the results in Table 1 to support it. Examiner has completely ignored Table 1 and specifically the wording of applicants' claims, beginning with claim 1, requiring **both** sodium acetate and acetic acid for the desired result of a stable microbiocidal suspension. Nothing in either Gartner nor Miskiel would lead one to use both sodium acetate and acetic acid, nor to expect the results shown in Table 1.

Reconsideration of the rejections is requested.

Current status of the claims is shown in the appended sheets.

Respectfully submitted,

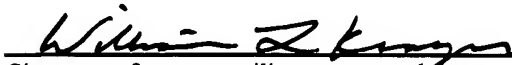


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I hereby certify that the application/correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37CFR1.10 on the date indicated above and is addressed to Mail Stop Non-fee Amendment, Commissioner for Patents, PO Box 1450, Alexandria VA 22313-1450.


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Person Mailing Correspondence

1. [Currently amended] An antimicrobial composition comprising, in water, a haloacetamide, an acetate-free ~~Xanthan~~ xanthan gum, and a buffer of sodium acetate and acetic acid in an amount effective to maintain a pH in the range of 1-5.
2. [Original] A composition of claim 1 in the form of a suspension.
3. [Currently amended] A composition of claim 1 wherein said haloacetamide is 2,2 dibromo 3-nitrilopropionamide 3-nitrilopropionamide.
4. [Canceled]
5. [Currently amended] A composition of claim 1 wherein said acetate-free ~~Xanthan~~ xanthan gum contains no more than 1.2% acetic acid or acetate groups by weight.
6. [Original] A composition of claim 1 wherein said buffer comprises sodium acetate and acetic acid in a weight ratio of 1.5:1 to 2.5:1 .
7. [Currently amended] A suspension of at least 5% by weight of a haloacetamide in water including acetate-free ~~Xanthan~~ xanthan gum suspending agent, and a buffer comprising 1-2% sodium acetate and 0.5-1% acetic acid.
8. [Original] A suspension of claim 7 wherein said haloacetamide comprises 10% to 45% haloacetamide, and said buffer is present in an amount effective to maintain a pH in said suspension of 1-5.
9. [Original] A suspension of claim 7 wherein said sodium acetate and acetic acid are present in a molar ratio of 1.5:1 to 2.5:1.
- 10.[Original] A suspension of claim 7 wherein said haloacetamide is present in an amount from 5% by weight to 60% by weight.
- 11.[Original] A suspension of claim 7 wherein said haloacetamide is present in an amount from 10% to 45% by weight and said buffer is effective to maintain the pH at 3.8-4.2.
- 12.[Original] A suspension of claim 7 wherein said haloacetamide is present in an amount from 15% to 25% by weight.
- 13.[Currently amended] A suspension of claim 7 wherein said acetate-free ~~Xanthan~~ xanthan gum is present in an amount from 0.1% to 5% by weight.
- 14.[Currently amended] A suspension of claim 7 wherein said acetate-free ~~Xanthan~~ xanthan gum is present in an amount from 0.5% to 4% by weight.
- 15.[Currently amended] A stable antimicrobial composition comprising water, a haloacetamide in an effective antimicrobial amount, an acetate-free ~~Xanthan~~ xanthan gum in an amount effective to form a suspension of said haloacetamide in said water, sodium acetate, and acetic acid, said sodium acetate and acetic acid being present in a ratio and amount effective to inhibit the degradation of said haloacetamide by hydrolysis.
- 16.[Currently amended] A composition of claim 15 wherein said haloacetamide is 2,2 dibromo 3-nitrilopropionamide 3-nitrilopropionamide.

- 17.[Original] A composition of claim 16 wherein said 2,2 dibromo 3-nitrilopropionamide is present in an amount from 5% to 60% by weight.
- 18.[Original] A composition of claim 17 wherein said sodium acetate and acetic acid are present in a molar ratio of 1.5:1 to 2.5.